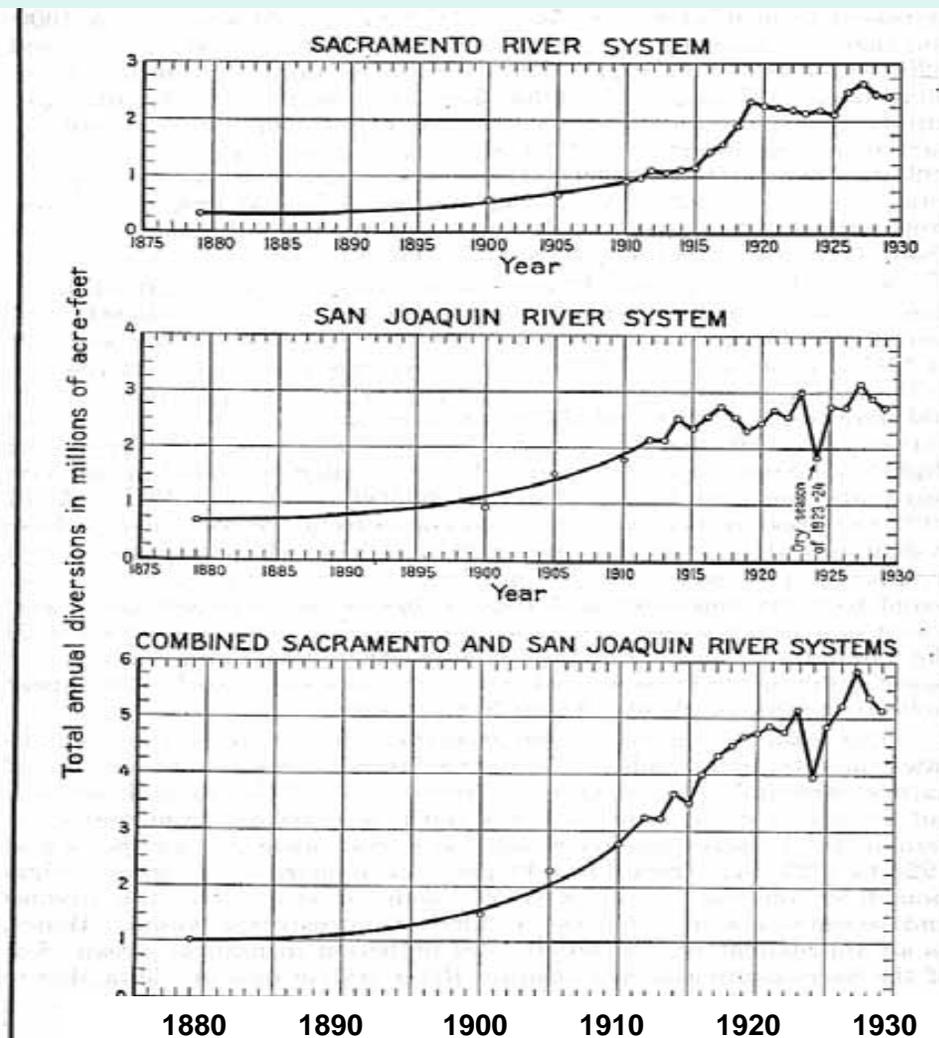


Historical Upstream Diversions



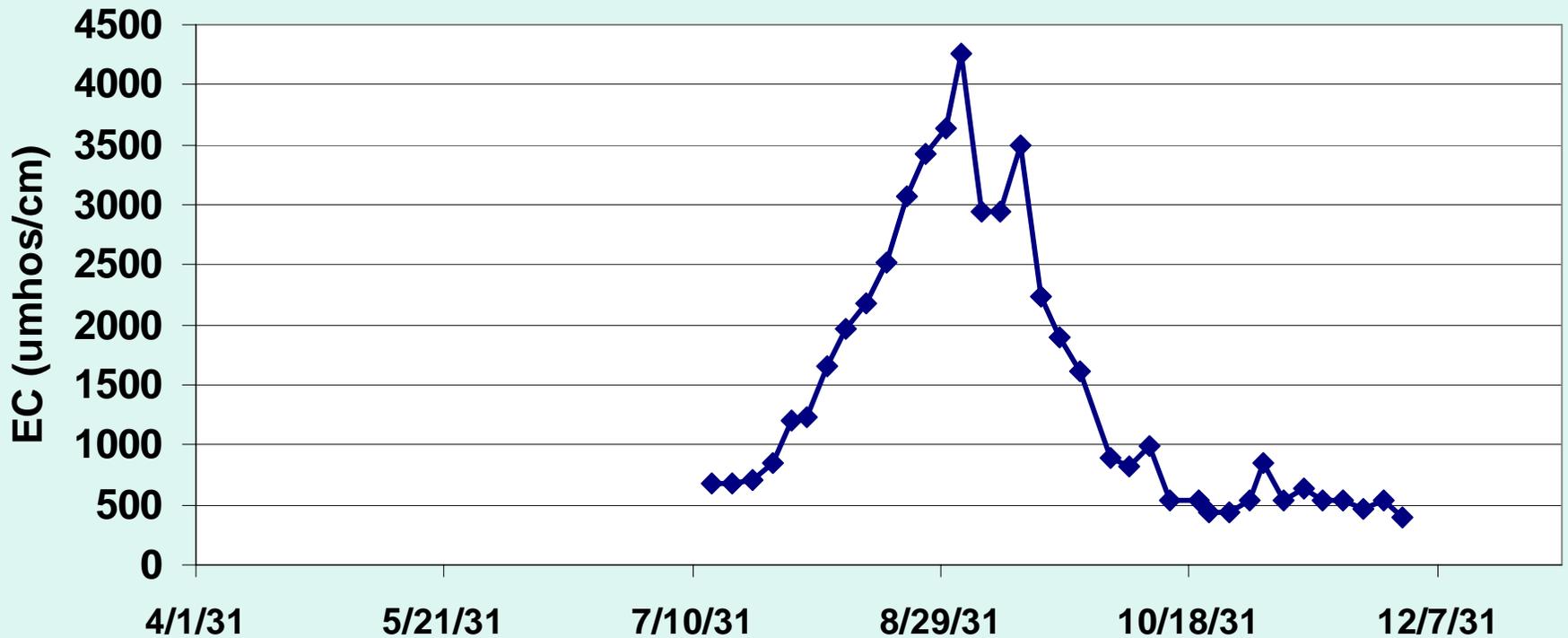
**GROWTH OF IRRIGATION DIVERSIONS
FROM
SACRAMENTO AND SAN JOAQUIN RIVER SYSTEMS**

San Joaquin River Historic Minimum Monthly Flows (cfs)

Year	May	June	July	August	September
1924	1,276	575	420	420	403
1926	6,927	1,904	470	312	509
1931	444	392	233	228	309
1934	639	627	395	383	484
1960	618	293	222	267	373
1961	380	207	104	151	311
1977	400	118	93	124	173
1987	2,178	1,990	1,632	1,627	1,545
1988	1,781	1,711	1,357	1,557	1,405
1989	1,949	1,583	1,284	1,169	1,309
1990	1,279	1,116	1,009	1,033	848
1991	1,049	568	594	537	556
1992	892	481	447	483	614

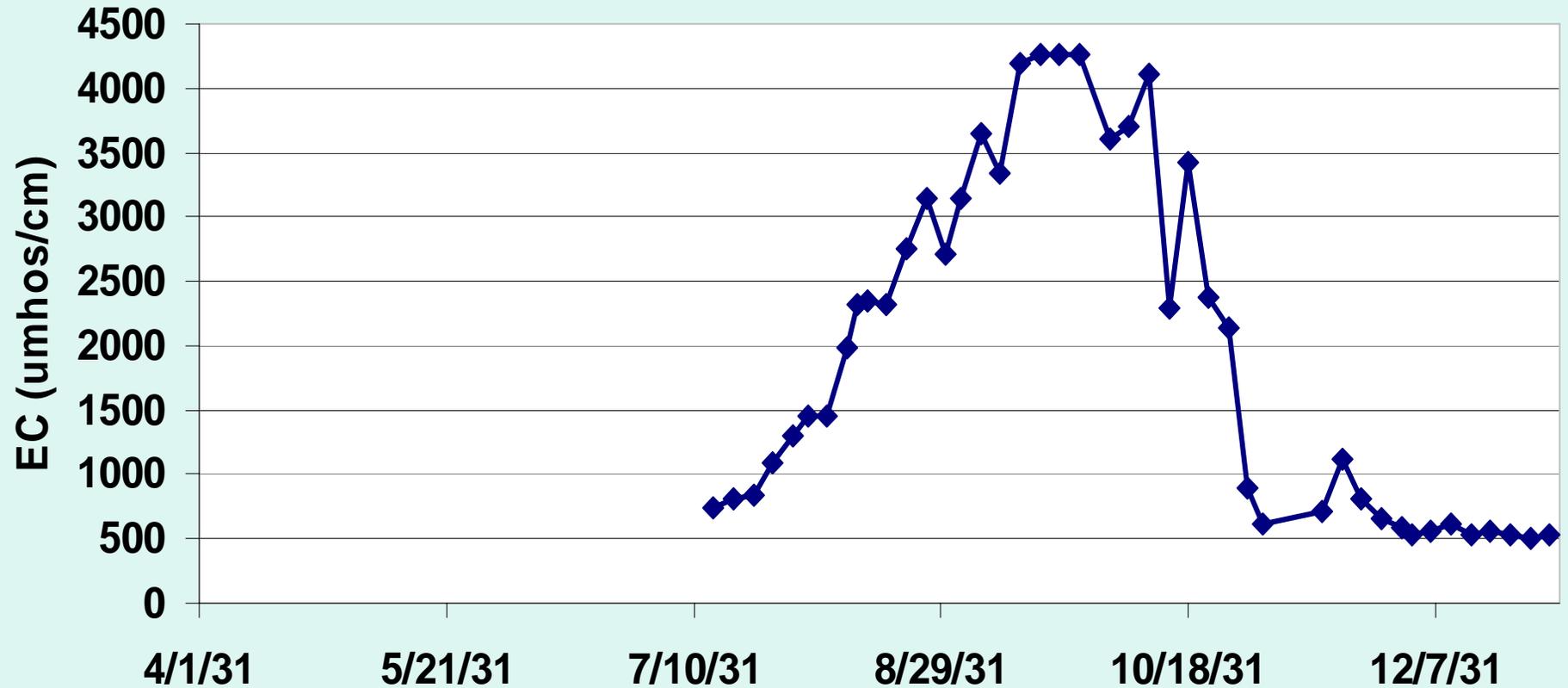
Historic South Delta Salinity

Middle River at Williams Bridge EC
(1931)



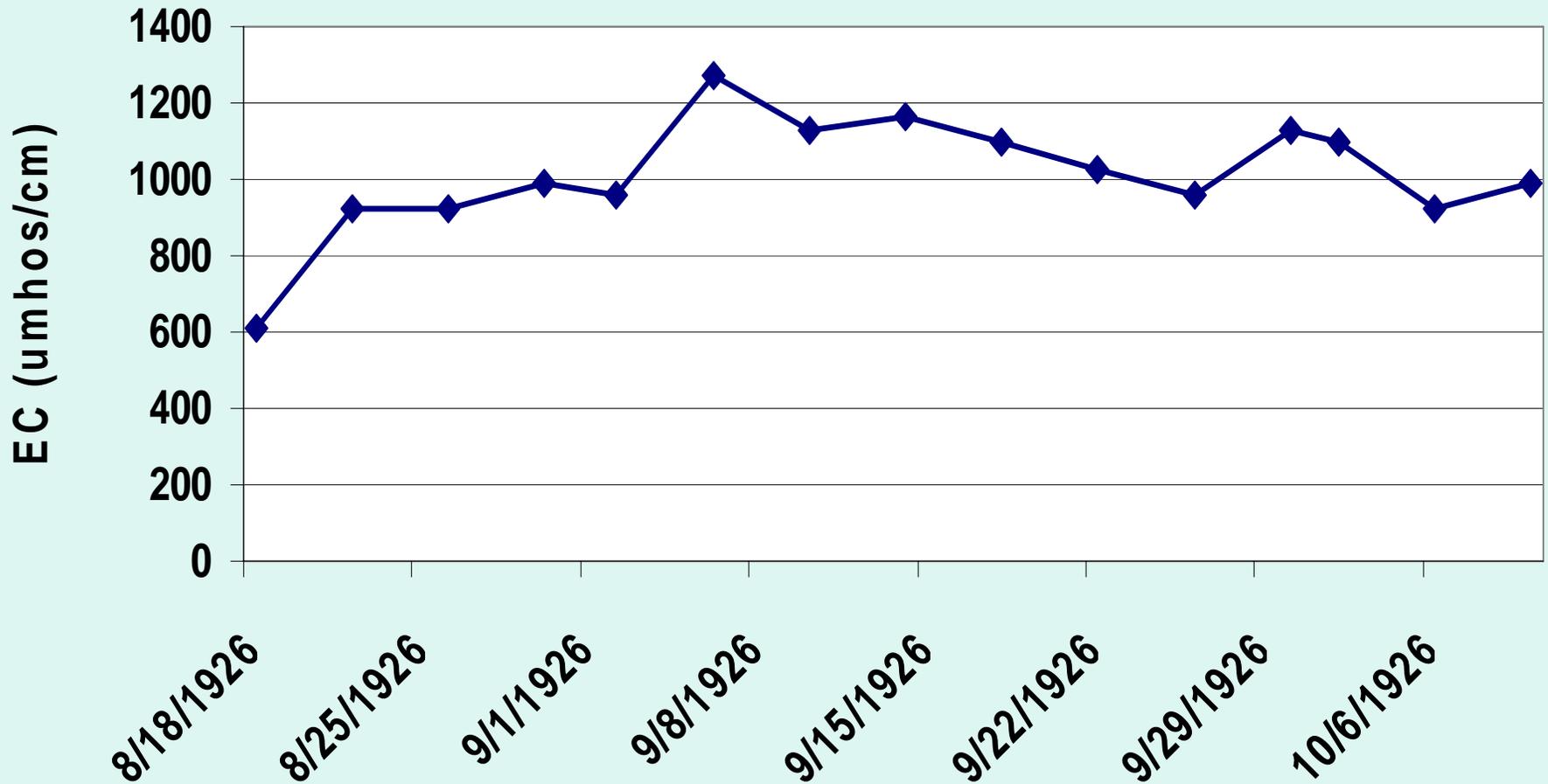
Historic South Delta Salinity

Old River at Clifton Court Ferry
EC 1931

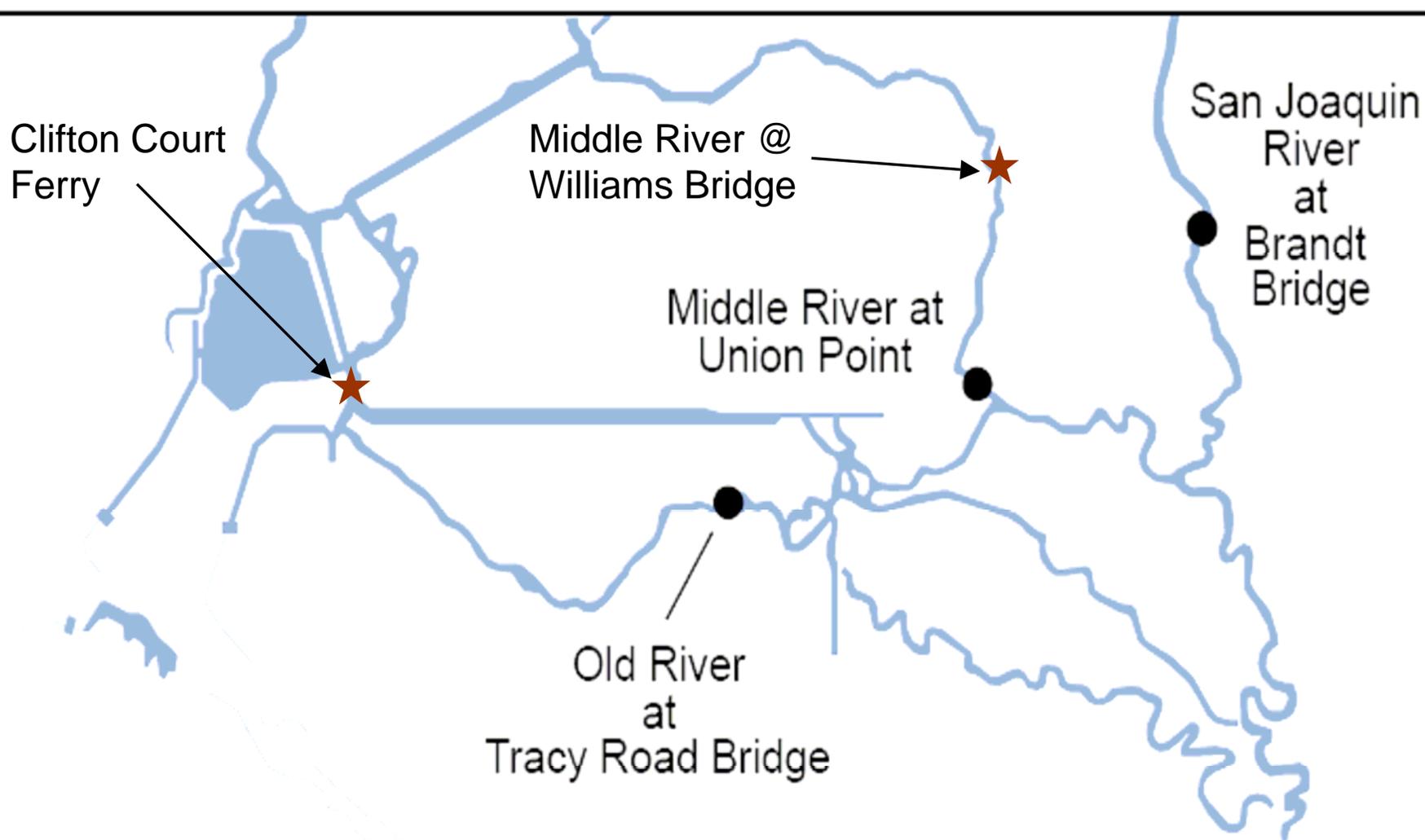


Historic South Delta Salinity

Clifton Court Ferry EC (1926)



South Delta Water Quality Measurement Sites



Historic Stations = ★

D-1641 Compliance Stations = ●

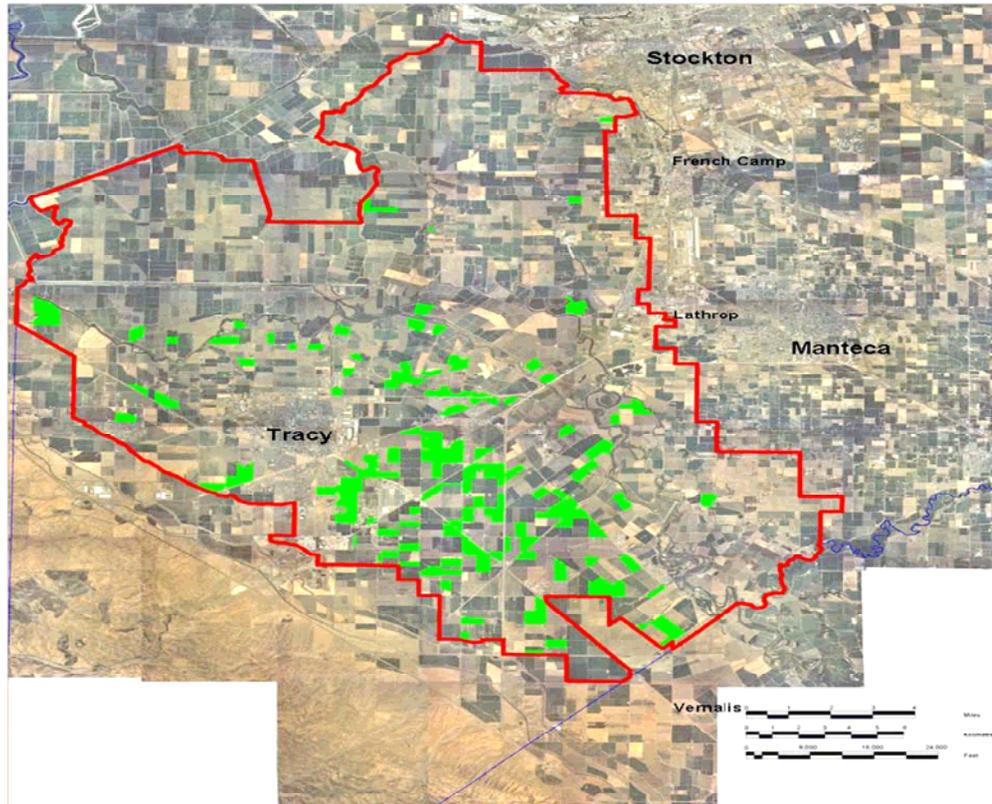
Crop Mix Within SDWA

South Delta Water Agency
1996 Land Use Survey
Bean Fields

DWR - 21



Location Map



- Legend**
- Beans Mapped in 1996 Land Use Survey of San Joaquin County
 - South Delta Water Agency Boundary (DRAFT, Subject to Correction)
 - San Joaquin County Boundary

Aerial Photo: June, 1996

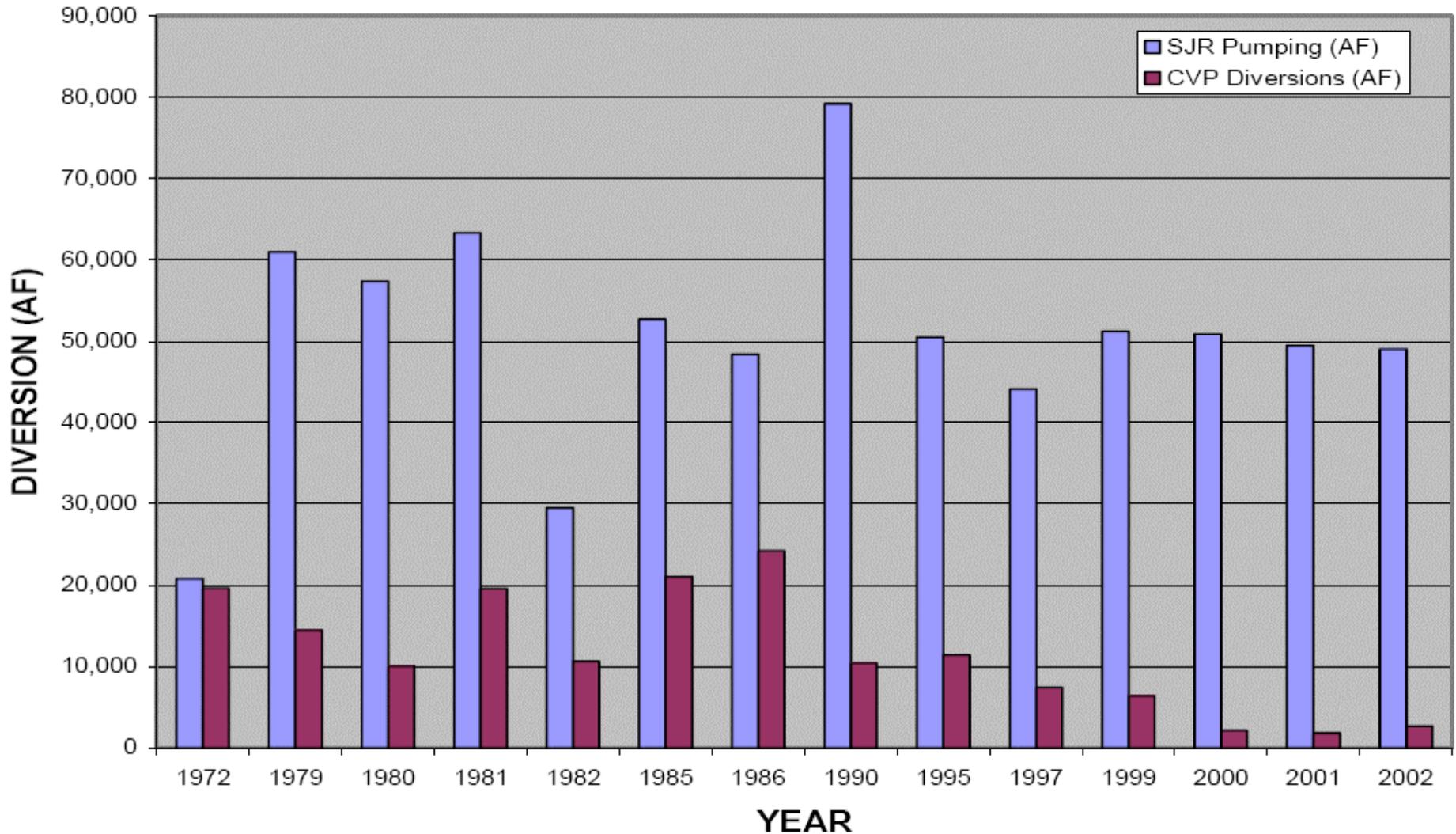


STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES
CARTAGENA CENTER

Figure 6

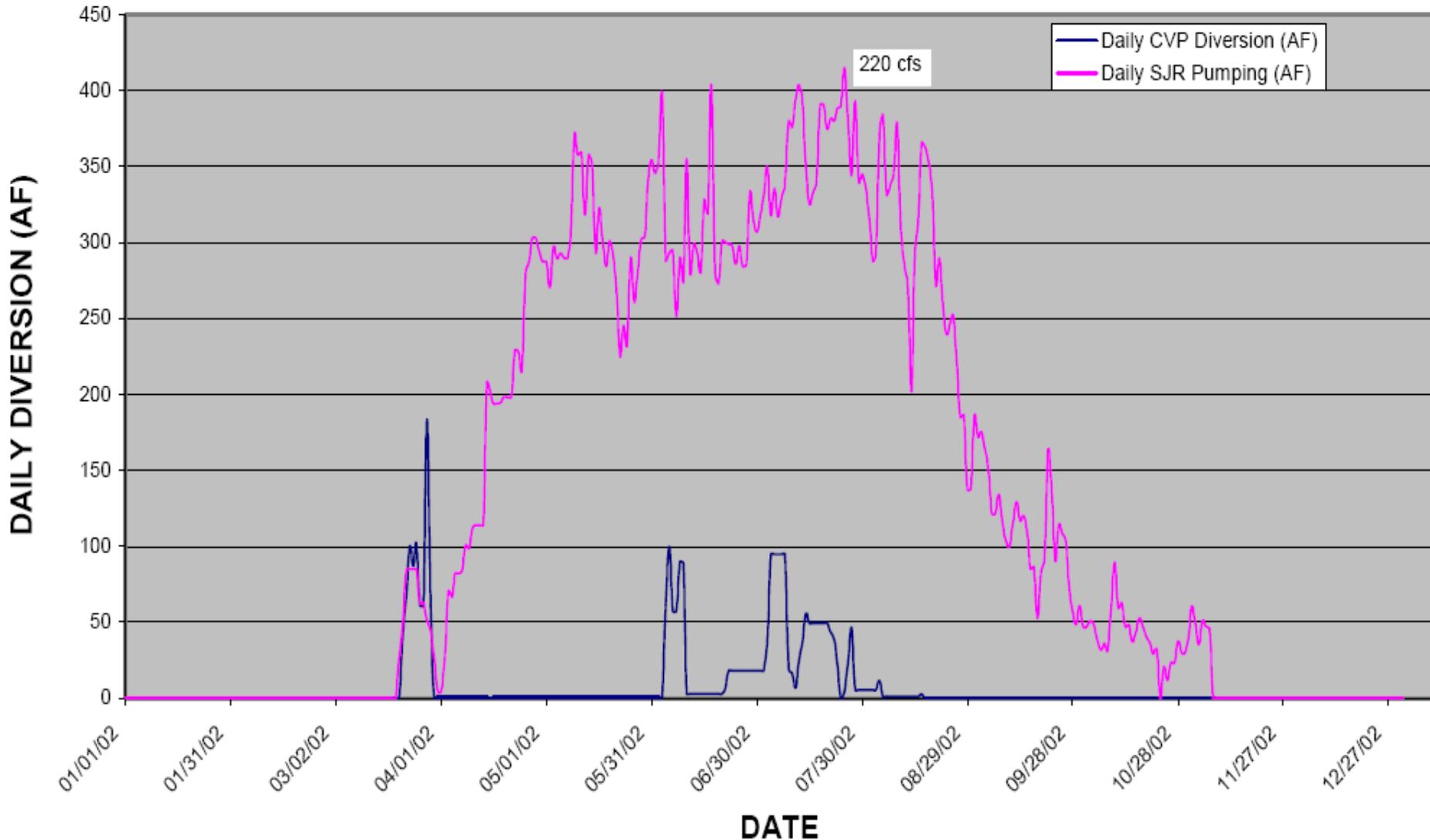
Banta Carbona Irrigation District

ANNUAL CVP DIVERSIONS AND SJR PUMPAGE 1972-2002



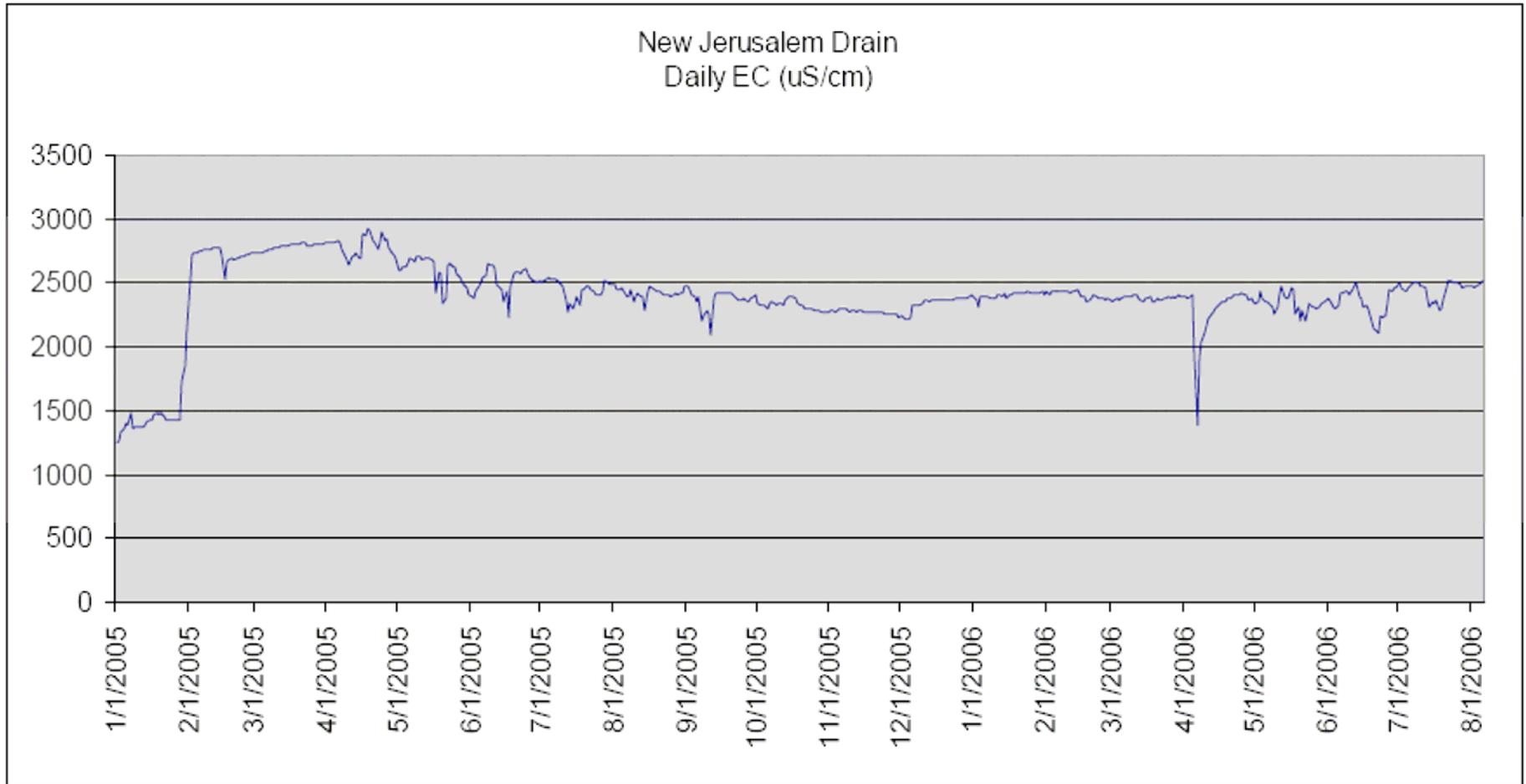
Banta Carbona Irrigation District

DAILY CVP DIVERSIONS AND SJR PUMPING

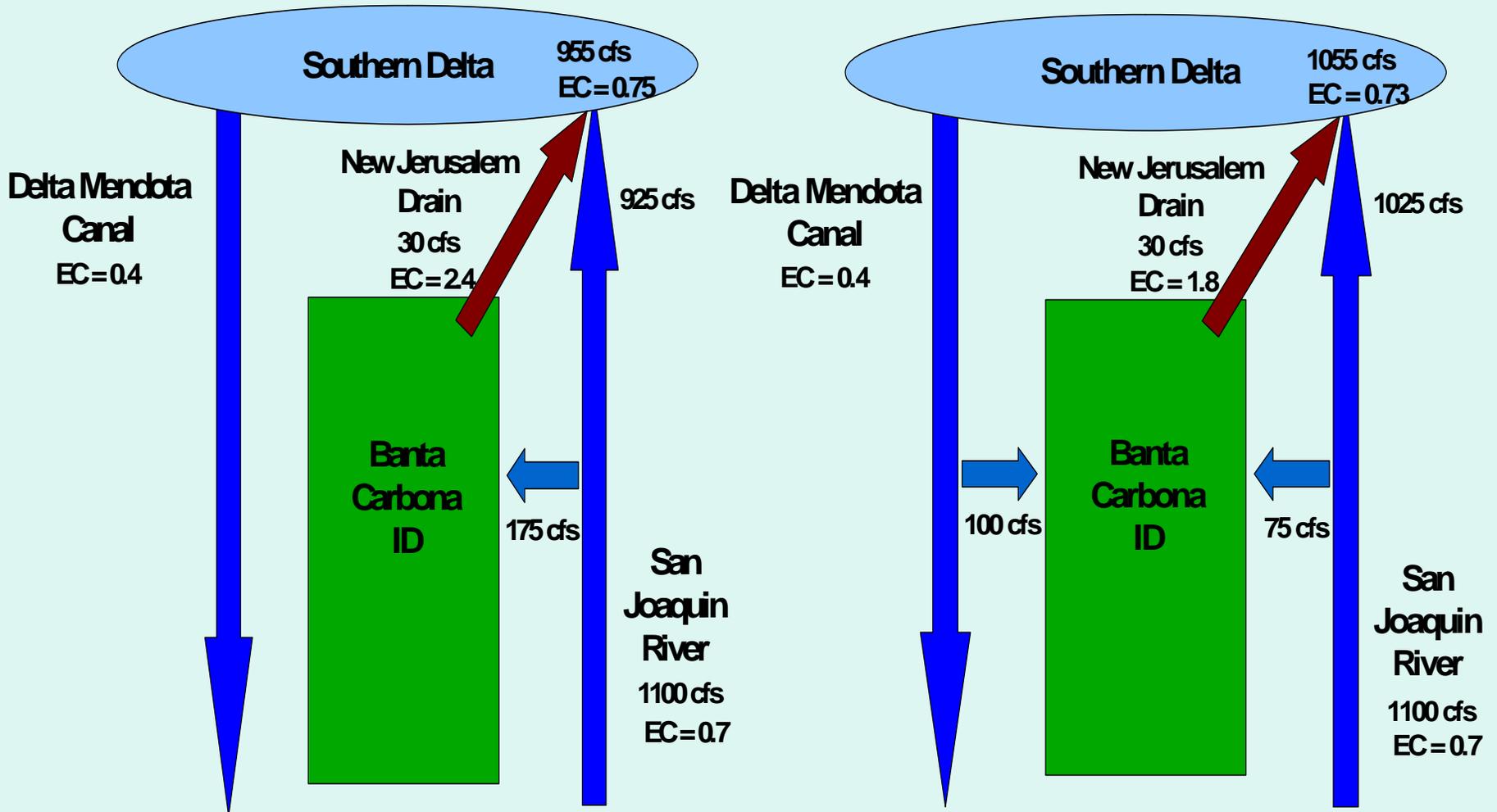


Banta Carbona Drainage Water Quality

New Jerusalem Drainage CDEC Data



Conceptual Model of Banta Carbona ID Operations and Delta Water Quality Impacts



South Delta Water Agency Comments (pp. 1-2)

- **“With regard to the causes of the salinity problem, SDWA believes that the contributions of CVP imported salts to the San Joaquin River, the decreased flows in the River due to the CVP operations and the concentration of salts in the Delta channels due to altered flow patterns are well known and documented.”**
- **“Just as importantly, the ‘pull’ of the export pumps reverses the flows in certain channels, which when combined with the normal tidal actions, creates null or stagnant zones where salts accumulate because they are not flushed out.”**
- **“Generally, the barriers have simply changed the location and size of the null zones in Middle River and Old River. Hence, the operation of the export pumps worsens water quality in the southern Delta, and although the mitigation for the lowered level (i.e. the barriers) exacerbates the quality problem.”**
- **“The SWP adds to the pull of ocean salts into the system and facilitates the recirculation of the salts as they come back down the River. The SWP also independently adds to the ground water in the valley thus increasing downslope migration of the poor groundwater.”**